Research Progress: Game-based Learning for Future School

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Research introduction

- Research topic: Game-based Learning for Future School
- Research purpose
- ✓ point out the great significance of game-based learning
- ✓ analyze the research tendency
- ✓ what should be the game-based learning in future school
- ✓ establish a strong theory foundation for game-based learning

Recent progress

- Literature Review upon the studies of game-based learning from the perspective of cognitive neuroscience

- ✓ brain research technique
- ✓ What research findings from cognitive neuroscience study have been made to improve understanding how people learn
- ✓ game-based learning and cognitive skills
- ✓ game-based learning and subject learning
- ✓ game-based learning and emotion

Recent progress

- Theory foundation of game-based learning

✓ theory of learning environment

✓ Theory of learning approaches

✓ Theory of cognitive abilities

Recent progress

- Measurement structure of game-based learning

✓ Learning outcomes
    increased interest in subject matter
    improvement in objective performance
    transfer of knowledge and skill

✓ Motivational outcomes
    enjoyment
    increased motivation

✓ efficiency outcomes
    time management

Report abstract

- With modern technology frequently applied in classroom for teaching purposes, educational games are expected to make difference in transferring the didactic teaching pattern into the student-oriented fun learning. This research aims to provide practitioners with the empirical research findings to demonstrate the values and potentials of using educational games in primary schools, from which teachers will also obtain more knowledge about the concepts and strategies of game-based learning. So many theories from the perspective of psychology, neuroscience and learning sciences can give theoretical supportsfor game-based learning. Meanwhile, the essence of game-based learning perfectly matches the blueprints of future school, where learning should be scientific and fun. The innovation point of this research is also instantiated in combining game-based learning with traditional teaching pedagogy.

Case analysis

- Math game: Number Race

- ✓ number line
- ✓ spatial cognition
- ✓ magnitude

Thank you!

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